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EXAMINER	
SHECHTMAN, SEAN P	

ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/033,163	LANDERS ET AL.	
	Examiner	Art Unit	
	Sean P. Shechtman	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *See Continuation Sheet* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,9,10,13-22,44,47-51,58,59,62-71,93,96-100,104-113,116,119-123 and 128-137* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 January 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims pending in the application are 1,2,9,10,13-22,44,47-51,58,59,62-71,93,96-100,104-113,116,119-123 and 128-137.

DETAILED ACTION

1. Claims 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 are presented for examination. Claims 1, 2, 10, 15-18, 49-51, 59, 64-67, 93, 96-100, 106-109, 121-123, and 130-133 have been amended. Claims 3-8, 11, 12, 23-43, 45, 46, 52-57, 60, 61, 72-92, 94, 95, 101-103, 114, 115, 117, 118, and 124-127 have been canceled.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "that the master process model 20 depicted includes with it, but is not limited to, the virtual blank 10, added manufacturing features 12a-12j by way of virtual machining, and datum planes 2, 3, and 4 all in their respective associative relationships as exhibited from the geometries and characteristics of the reference set 26" as described in the specification on page 19, lines 2-6. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: Referring to page 18, line 28 – page 19, line 21 and figures 8-9, it is unclear what part of the description is referring to figure 8 and what part of the description is referring to figure 9.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed January 5th 2005. In that paper, applicant has stated that creating a master process model comprises a virtual blank, and the "virtual blank exhibits fourth associative relationship with said coordinate system" in at least claims 1 and 7 on pages 2-3, and this statement indicates that the invention is different from what is defined in the claim(s) because if the master process model comprises the virtual

blank, and the virtual blank exhibits fourth associative relationship with a coordinate system, the master process model would also, by association, have a relationship with the coordinate system. This statement indicates that the invention is different from what is defined in the claim(s) because the claims, as such, require that the master process model lack an associative relationship with a coordinate system.

Claims 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 1, 50, 99, and 122 require the limitation of virtual machining a manufacturing feature into a virtual blank, wherein the manufacturing feature exhibits an associative relationship with a coordinate system, wherein the virtual blank is included in a master process model that lacks an associative relationship with the coordinate system. Since the master process model includes the virtual blank, it would also, by association, have a relationship with the coordinate system. Therefore, it is not clear how the master process model lacks an associative relationship with the coordinate system.

6. Claim 2 requires the limitation that "said associative relationship is a parent/child relationship", however claim 2 depends on claim 1 and claim 1 recites the limitations of a model "lacking an associative relationship" and a feature "exhibiting an associative relationship". Therefore it is not clear which associative relationship is "said associative relationship".

7. Claim 51 requires the limitation that "said associative relationship is a parent/child relationship", however claim 51 depends on claim 50 and claim 50 recites the limitations of a

model "lacking an associative relationship" and a feature "exhibiting an associative relationship". Therefore it is not clear which associative relationship is "said associative relationship".

8. Claim 100 requires the limitation that "said associative relationship is a parent/child relationship", however claim 100 depends on claim 99 and claim 99 recites the limitations of a model "lacking an associative relationship" and a feature "exhibiting an associative relationship". Therefore it is not clear which associative relationship is "said associative relationship".

9. Claim 123 requires the limitation that "said associative relationship is a parent/child relationship", however claim 123 depends on claim 122 and claim 122 recites the limitations of a model "lacking an associative relationship" and a feature "exhibiting an associative relationship". Therefore it is not clear which associative relationship is "said associative relationship".

10. Claim 44 depends on claim 44 and therefore is not clear.

11. Claims 18, 67, 109, 133 recites the limitation "said datum planes" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 122, 123 and 128-137 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Referring to claims 122, 123 and 128-137, the data signal is not tangibly embodied in a computer-readable medium. Data structures not

claimed as tangibly embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Claims 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,735,489 to Khurana.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Referring to claims 1, 50, 99, and 122, Khurana clearly teaches a method, system, part, and computer program of horizontally structured CAD/CAM manufacturing (Title; Abstract), comprising:

identifying a real-world blank for machining (Col. 6, lines 31-38; Col. 6, lines 11-12);

creating a master process model including a virtual blank generated from a referenced set of geometries (Col. 6, lines 11-46), said master process model lacking an associative relationship

with a coordinate system (Col. 3, lines 59-65, Cols. 5-6 and the arguments presented below), said virtual blank corresponding to said real world blank (Col. 1, lines 37-39; Col. 6, lines 32-39);

virtual machining a manufacturing feature into said virtual blank, the manufacturing feature exhibiting an associative relationship with said coordinate system (Col. 8, lines 31-41; Fig. 5);

deriving manufacturing instructions from said master process model to create a real-world component by machining said manufacturing feature into the real-world blank (Abstract; Col. 1, lines 50-53; Col. 6, lines 23-31; Col. 8, lines 61-64).

Referring to claims 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137, Khurana teaches the above, wherein said associative relationship is a parent/child relationship; further comprising creating extracts from said master process model, wherein said extracts comprise replicated models of said master process model at various operations of said manufacturing instructions; wherein said virtual blank is positioned and oriented relative to said coordinate system; wherein said virtual blank is generated as a three dimensional parametric solid model from said reference set geometry; wherein said reference set geometry is defined by dimensional characteristics of a modeled part; wherein establishing said coordinate system comprises one or more datum planes; wherein said coordinate system comprises: a first datum plane positioned and oriented relative to a reference, a second datum plane positioned and oriented relative to said reference; and a third datum plane positioned and oriented relative to said reference; wherein said first datum plane, said second datum plane, and said third datum plane are orthogonal; generating machining instructions to create said actual part by machining manufacturing features into a blank and creating extracts from a master

product and process model; wherein said extracts are used to generate manufacturing process sheets; wherein the master process model or process sheets links to numerically controlled machine tools and a coordinate measuring machine; and removing or establishing or substituting a link among a plurality of model elements (See figures 1-6; Col. 2, lines 7-65; Col. 8, lines 11-41; Col. 8, lines 50-67; Col. 9, line 1 – Col. 10, line 17).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

14. Claims 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,629,065 to Gadh (supplied by applicant) in view of U.S. Pat. No. 4,928,221 to Belkhiter.

Referring to claims 1, 50, 99, and 122, Gadh clearly teaches a method, system, part, and computer program of horizontally structured CAD/CAM manufacturing for concurrent product and process design (Fig. 55A and 55B; Col. 36, lines 28-39; Col. 8, lines 5-24), comprising:

identifying a real-world blank for machining (Figs. 10A-10C and corresponding description, i.e., "rubber-banding");

creating a master process model including a virtual blank generated from a referenced set of geometries (Col. 10, lines 22-58; Fig. 55A, element b1), said master process model lacking an associative relationship with a coordinate system (Col. 24, lines 6-32), said virtual blank corresponding to said real world blank (Fig. 55A, element b1);

virtual machining a manufacturing feature into said virtual blank (Fig. 55A, any of elements nw or nb; See Fig. 55A and Col. 36, lines 28-39), the manufacturing feature exhibiting an associative relationship with said coordinate system (See Fig. 25A-25D; Col. 24, lines 6-32);

Referring to claims 2, 9, 10, 13-22, 44, 47-49, 51, 58, 59, 62-71, 93, 96-98, 100, 104-113, 116, 119-121, 123, 128-137, Gadh teaches the above, wherein said associative relationship is a parent/child relationship (Col. 24, lines 6-32; Col. 40, lines 14-57), further comprising creating extracts from said master product and process model, wherein said extracts comprise replicated models of said master product and process model at various operations of said manufacturing (Fig. 55C; Col. 10, line 54- Col. 11, line 7), Gadh teaches the above, wherein said virtual blank is positioned and oriented relative to said coordinate system, wherein said virtual blank is generated as a three dimensional parametric solid model from a reference set geometry, wherein said reference set geometry is defined by dimensional characteristics of a modeled part, wherein establishing said coordinate system comprises one or more datum planes, wherein said coordinate system comprises: creating a first datum plane positioned and oriented relative to a reference, creating a second datum plane positioned and oriented relative to said reference; and creating a third datum plane positioned and oriented relative to said reference, wherein said first datum plane, said second datum plane, and said third datum plane are orthogonal (Figs. 25A-D and 55A).

While Gadh clearly teaches creating a model and constructing a part in the VDSF, Gadh fails to provide for deriving manufacturing instructions from the master process model to create a real-world component by machining the manufacturing feature into the real-world blank.

While the instant claims call for horizontally structured CAD/CAM manufacturing, as presented by Gadh above, the instant specification appears to describe this horizontal structure with respect to the establishment of relationships that are taught as both horizontal and vertical (See page 4-5 and 9-10 of the instant specification). Therefore, even though the examiner interprets the claims to require at least a horizontally structured relationship in the preamble, the claims do not required any of the limitations in the body of the claims to have such a horizontal structure, exclusive, or non-exclusive CAD/CAM relationship. Namely, the claims do not require a horizontally structured CAD/CAM relationship with respect to generating machining instructions to create the actual part by machining the manufacturing feature into the blank.

Furthermore, the recitation "horizontally structured CAD/CAM manufacturing" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Clearly, the body of the claims do not depend on the preamble for completeness, in fact, applicant has admitted that the intended use of the horizontal structure is not limited by non-verticality (See pages 4-5 of the instant specification).

In view of the above, the examiner respectfully submits that patentability resides in the determination of non-obviousness with respect to deriving machining instructions from a model to create a real-world component by machining, in real life, the manufacturing feature into the real-world blank. The examiner respectfully submits that deriving machining instructions from a

model to create a real-world component by machining, in real life, the manufacturing feature into the real-world blank, is commonly known in the art, and therefore, the examiner is unable to make said determination of non-obviousness at this time.

The examiner believes these limitations are clearly taught by Belkhiter.

Referring to claims 1, 50, 99, and 122, Belkhiter clearly teaches analogous art, wherein a conventional CAD/CAM system is used to produce a part drawing (Col. 2, lines 53-66 of '221) and then deriving machining instructions from the CAD/CAM system to create a real-world part by machining manufacturing features into a blank (See Cols: 7-8, table 2; Col. 1, lines 6-14; Col. 3 of '221;), and creating extracts from a master process model, wherein said extracts are used to generate manufacturing process sheets (Col. 14, lines 6-11 of '221).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to combine the teachings of Belkhiter with the teachings of Gadh.

One of ordinary skill in the art would have been motivated to combine Belkhiter with Gadh because Belkhiter teaches a part program suitable for machining a part from a drawing without the need for human intervention. Furthermore, Belkhiter teaches a system that reduces lead-time between the request for a part and the machining of a part. Further still, Belkhiter teaches a system that reduces manpower costs (Col. 1, line 62 – Col. 2, line 2 of '221).

Double Patenting

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. Claims 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-78 of U.S. Patent No. 6,775,581 to Landers. Claims 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-42 of U.S. Patent No. 6,754,556 to Landers. Claims 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-88 of copending Application No. 10/032959 to Landers (this is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented).

Although the conflicting claims are not identical, they are not patentably distinct from each other because

Claim(s) 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 are generally broader than claims 1-78 of U.S. Patent No. 6,775,581 to Landers. Claim(s) 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 are generally broader than claims 1-42 of U.S. Patent No. 6,754,556 to Landers. Claim(s) 1, 2, 9, 10, 13-22, 44, 47-51, 58, 59, 62-71, 93, 96-100, 104-113, 116, 119-123, 128-137 are generally broader than claims 1-88 of copending Application No. 10/032959 to Landers. Broader claims in a later application constitute obvious double patenting of narrow claims in an issued patent. See In re Van Ornum and Stang, 214, USPQ 761, 766, and 767 (CCPA) (The court sustained an obvious double patenting rejection of generic claims in a continuation application over narrower species claims in an issued patent) ; In re Vogel, 164 USPQ 619, 622,

and 623 (CCPA 1970) (Generic application claims specifying "meat" is obvious double patenting of narrow patent claims specifying "pork").

Response to Arguments

Applicant's arguments filed June 30th 2005 have been fully considered but they are not persuasive.

17. Applicant argues that claim 122 has been amended to recite that the signal is tangibly embodied in a medium. The examiner respectfully disagrees. The examiner respectfully submits that amended claim 122 does not recite, "the signal is tangibly embodied in a medium". Data structures not claimed as tangibly embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

18. Applicant argues that Khurana does not teach that said master process model is lacking an associative relationship with a coordinate system. The examiner respectfully disagrees. The examiner respectfully submits that Khurana reads on this limitation in anyone of the following ways:

a) Khurana teaches the "coordinate system thus created is a relative one, meaning it rotates and moves along with the model. This is in contrast to an absolute coordinate system that exists apart from the model as is common to all CAD/CAM software. Unigraphics software actually has two absolute coordinate systems, a "world" coordinate system and a more local "working level" coordinate system" (Col. 3, lines 59-65). The examiner respectfully submits that the absolute coordinate system existing apart from the model is the model lacking an associative relationship with a coordinate system.

b) Khurana shows the master process model 20 is in figure 5 separated from the coordinate system 6, thereby lacking an associative relationship.

c) Khurana teaches the master process model 20 is shown in figure 4 wherein an additional datum plane (coordinate system) may be added, optionally (Col. 5, lines 49-53). The examiner respectfully submits that this option shows that when the additional optionally added datum plane is not added, the master process model lacks an associative relationship with the additional datum plane (coordinate system).

d) Khurana teaches that the model may have features that do not directly depend as children from the coordinate system, such as a groove mounted on another physical feature, not a datum (Col. 5, lines 40-48). Therefore, the master process model may also lack this associative relationship with a coordinate system.

e) Khurana teaches that additional datum planes may be added as children features to the master process model (Col. 5, lines 49-53), therefore, if these features are children they cannot be siblings. Thus, the master process model is lacking an associative sibling relationship with these features.

f) Khurana teaches that additional face planes can be added to the master process model and that such additional face planes have a sibling relationship with the original face plane (Col. 5, lines 53-63). Thus, the master process model is lacking an associative parent/child relationship with the additional face plane.

g) Khurana teaches that features may be added to the extract without appearing in the master model (Col. 8, lines 6-7), wherein Khurana teaches that a feature is defined as a

coordinate system (Col. 2, lines 43-47). Therefore, the master process model lacks an associative relationship with a coordinate system.

The claims, as such, do not require that the master process model have absolutely no associative relationships with any coordinate system, the claims as such, only require that the master process model does not have a associative relationship (i.e., a single type of associative relationship or independance) with a coordinate system. See paragraph 85 of the instant specification that teaches the described independance has the advantage that "for example, different reference sets or geometries may be selected and a new master process model generated therefrom and subsequently, the same features and associated datums added" (See paragraph 85). Thus, the examiner respectfully submits that if a master process model can have a coordinate system added to it and at the same time the master process model does not have an associative relationship with a coordinate system, then the master process model can have at least one or more associative relationships with a coordinate system and the master process model has the ability to not have at least one or more other associative relationships with a coordinate system.

Referring to independent claims 1, 50, 99, and 122, while the claims recites the limitation of a master process model, the claims do not require any extracts of the master process model, and there is no explicit definition of the term "master process model". The examiner respectfully submits that, without claimed functionality of the master process model controlling extracts created from the master process model, the term "master" in the phrase "master process model" can only require that the model is a master of nothing and, thus, is just a process model.

As clearly stated in the previous rejection, the term "associative relationship" requires no further explanation and that it will be given its plain meaning as required by MPEP 2111.01.

Webster's Dictionary defines associative as "of, or relating to, in association with" while relationship as "a state or character of being related...a natural or logical association between two or more things, connection."

19. Applicant argues that Gadh fails to teach that the master process model is lacking an associative relationship with a coordinate system. The examiner respectfully disagrees. The examiner respectfully submits that Gadh reads on this limitation in anyone of the following ways:

a) Gadh clearly teaches at least two coordinate systems. One from the user viewpoint and the others that are XYZ coordinate systems fixed on the model. Once a user viewpoint command is issued to align a child element the VDSF determines which of the XYZ coordinate axes fixed on the model most closely corresponds to the left-right axis (from the user viewpoint) and the child element is aligned on the model along that axis of the model (the XYZ axis) (See col. 24, lines 6-32). If the model were not lacking an associative relationship with the user viewpoint there would be nothing for VDSF to determine. It is because the model is lacking an associative relationship with the user viewpoint that the VDSF must make the determination of which XYZ axis to use in alignment.

b) Figs. 25A-25D of Gadh show and Col. 24, lines 6-14 teaches b1 has a coordinate system and b2 has a coordinate system, wherein b1 and b1's coordinate system lack an associative relationship with the coordinate system of b2, i.e., it is clear that one of ordinary skill in the art would not use the coordinate system of b2 to align an element to b1.

20. Applicant argues that Gadh fails to teach each of said at least one manufacturing feature exhibiting an associative relationship with said coordinate system. The examiner respectfully disagrees.

Gadh clearly teaches the user issues commands to align a child element from the user viewpoint (see argument directly above), such as align child with left-right/top-bottom/front-rear portion of the model (See col. 24, lines 6-32). The child element has already been shown to be a manufacturing feature.

21. Applicant submits that terminal disclaimers were filed rendering the double patenting rejections moot. The examiner is unable to locate these terminal disclaimers at this time. Therefore, the double patenting rejections have been maintained.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571) 272-3754. The examiner can normally be reached on 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SPS

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July 7, 2005

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